In the Claims:

Amend Claims 9 and 11 as follows.

9. (Amended) A method for identifying a compound that modulates a biological activity of a serotonin-gated anion channel, said method comprising the steps of:

(a) administering a test compound to a cell comprising a serotonin-gated anion channel encoded by a purified nucleic acid sequence that hybridizes, under conditions comprising hybridization at about 42°C followed by a first wash at about 42°C in about 6X SSC sodium chloride/sodium citrate solution and about 1% Sodium Dodecyl Sulfate, and a second wash at about 50°C in about 6X SSC sodium chloride/sodium citrate solution and about 1% Sodium Dodecyl Sulfate, to a purified nucleic acid sequence comprising the sequence of SEQ ID NO:2; and

(b) assaying a modulation in current flux into or out of said cell, wherein said modulation in current flux is indicative of a compound that modulates said biological activity of said serotonin-gated anion channel.

11. (Amended) A method for characterizing a drug as being associated with a serotonin-mediated cellular response, said method comprising detecting a modulation in current flux through a serotonin-gated anion channel encoded by a purified nucleic acid sequence that hybridizes, under conditions comprising hybridization at about 42°C

followed by a first wash at about 42°C in about 6X SSC sodium chloride/sodium citrate solution and about 1% Sodium Dodecyl Sulfate, and a second wash at about 50°C in about 6X SSC sodium chloride/sodium citrate solution and about 1% Sodium Dodecyl Sulfate, to a purified nucleic acid sequence comprising the sequence of SEQ ID NO:2, when said channel is exposed to said drug, wherein said modulation in current flux is indicative of said drug being associated with a serotonin-mediated cellular response.

Add new claims 22-29.

22. (New) The method of claim 9, wherein said purified nucleic acid sequence hybridizes to a purified nucleic acid sequence comprising the sequence of SEQ ID NO:2 under conditions comprising hybridization at about 42°C in about 50% formamide followed by a first wash at about 65°C in about 2X SSC sodium chloride/sodium citrate solution and about 1% Sodium Dodecyl Sulfate, and a second wash at about 65°C in about 1X SSC sodium chloride/sodium citrate solution and about 0.1% Sodium Dodecyl Sulfate.

23. (New) The method of claim 11, wherein said purified nucleic acid sequence hybridizes to a purified nucleic acid sequence comprising the sequence of SEQ ID NO:2 under conditions comprising hybridization at about 42°C in about 50% formamide followed by a first wash at about 65°C in about 2X SSC sodium chloride/sodium citrate

solution and about 1% Sodium Dodecyl Sulfate, and a second wash at about 65°C in about 1X SSC sodium chloride/sodium citrate solution and about 0.1% Sodium Dodecyl Sulfate.

24. (New) The method of claim 9, wherein said modulation in current flux is a decrease in current flux.

25. (New) The method of claim 9, wherein said modulation in current flux is an increase in current flux.

26. (New) The method of claim 9, wherein said current flux comprises chloride ions.

27. (New) The method of claim 11, wherein said modulation in current flux is a decrease in current flux.

28. (New) The method of claim 11, wherein said modulation in current flux is an increase in current flux.

29. (New) The method of claim 11, wherein said current flux comprises chloride ions.